### **Claims**

## 1. A compound of formula I

wherein

R<sup>1</sup> is selected from (RS)-[1,4]dioxan-2-yl-, (R)-[1,4]dioxan-2-yl-, and (S)-[1,4]dioxan-2-yl-;

 $R^2$  is a) -(CH<sub>2</sub>)<sub>n</sub>-pyridin-2,3 or 4-yl, or

-(CH<sub>2</sub>)<sub>n</sub>-pyridin-2,3 or 4-yl substituted by

- lower alkyl,

- (CH<sub>2</sub>)<sub>m</sub>-O-lower alkyl,

- (CH<sub>2</sub>)<sub>m</sub>NR'R",

- (CH<sub>2</sub>)<sub>m</sub>morpholinyl,

- (CH<sub>2</sub>)<sub>m</sub>-pyrrolidin-1-yl,

-  $(CH_2)_m$ -piperidine-1-yl,

-  $(CH_2)_m$ -piperidine-1-yl substituted by hydroxy,

 $-(CH_2)_m$ -O- $(CH_2)_o$ -CF<sub>3</sub>,

- (CH<sub>2</sub>)<sub>n</sub>-O-(CH<sub>2</sub>)<sub>m</sub>-cycloalkyl,

-  $(CH_2)_m$ -O- $(CH_2)_o$ -O-lower alkyl,

-  $(CH_2)_m$ -O- $(CH_2)_o$ -2-oxo-pyrrolidin-1-yl,

- (CH<sub>2</sub>)<sub>m</sub>-O-tetrahydropyran-4-yl,

- (CH<sub>2</sub>)<sub>m</sub>-O-(CH<sub>2</sub>)<sub>o</sub>-morpholinyl,

- di-hydropyran-4-yl,

- tetra-hydropyran-4-yl

- azetidin-1-yl, or

- azetidin-1-yl substituted by halogen, lower alkoxy or hydroxy; or

- b) (CH<sub>2</sub>)<sub>n</sub>-piperidine-1-yl, or
   (CH<sub>2</sub>)<sub>n</sub>-piperidine-1-yl substituted by one or two substituents selected from
   hydroxy, hydroxy-lower alkyl, lower alkyl and (CH<sub>2</sub>)<sub>m</sub>-O-lower alkyl; or
- c)  $(CH_2)_n$ -phenyl, or
  - (CH<sub>2</sub>)<sub>n</sub>-phenyl substituted by one or two substituents selected from halogen, lower alkyl, lower alkoxy and (CH<sub>2</sub>)<sub>n</sub>-NR'R''; or
- d) benzo[1.3]dioxol-5-yl;
  - (CH<sub>2</sub>)<sub>n</sub>-morpholinyl;
  - (CH<sub>2</sub>)<sub>n</sub>-tetrahydropyran-4-yl;
  - (CH<sub>2</sub>)<sub>n</sub>-O-lower alkyl;
  - (CH<sub>2</sub>)<sub>n</sub>-cycloalkyl;
  - (CH<sub>2</sub>)<sub>n</sub>-C(O)-NR'R";
  - (CH<sub>2</sub>)<sub>n</sub>-2-oxo-pyrrolidin-1-yl;
  - (CH<sub>2</sub>)<sub>n</sub>NR'R";
  - 2-oxa-5-aza-bicyclo[2.2.1]heptane-5-yl; or
  - 1-oxa-8-aza-spiro[4.5]decane-8-yl;

R' and R" are each independently selected from lower alkyl;  $-(CH_2)_0$ -O-lower alkyl; cycloalkyl; lower alkyl substituted by one or more substituents selected from hydroxy and lower alkyl;  $-(CH_2)_0$ -O-lower alkyl substituted by one or more substituents selected from hydroxy and lower alkyl; and cycloalkyl substituted by one or more substituents selected from hydroxy and lower alkyl;

- n is 0, 1, 2 or 3;
- m is 0 or 1; and
- o is 1 or 2;

or a pharmaceutically acceptable salt thereof.

#### 2. A compound of formula I

#### wherein

R<sup>1</sup> is selected from (RS)-[1,4]dioxan-2-yl-, (R)-[1,4]dioxan-2-yl-, and (S)-[1,4]dioxan-2-yl-;

 $R^2$  is a) -(CH<sub>2</sub>)<sub>n</sub>-pyridin-2,3 or 4-yl, or

-(CH<sub>2</sub>)<sub>n</sub>-pyridin-2,3 or 4-yl substituted by

- lower alkyl,

- (CH<sub>2</sub>)<sub>m</sub>-O-lower alkyl,

- (CH<sub>2</sub>)<sub>m</sub>NR'R",

- (CH<sub>2</sub>)<sub>m</sub>morpholinyl,

- (CH<sub>2</sub>)<sub>m</sub>-pyrrolidin-1-yl,

- (CH<sub>2</sub>)<sub>m</sub>-piperidine-1-yl,

- (CH<sub>2</sub>)<sub>m</sub>-piperidine-1-yl substituted by hydroxy,

- (CH<sub>2</sub>)<sub>m</sub>-O-(CH<sub>2</sub>)<sub>o</sub>-CF<sub>3</sub>,

- (CH<sub>2</sub>)<sub>n</sub>-O-(CH<sub>2</sub>)<sub>m</sub>-cycloalkyl,

- (CH<sub>2</sub>)<sub>m</sub>-O-(CH<sub>2</sub>)<sub>o</sub>-O-lower alkyl,

- (CH<sub>2</sub>)<sub>m</sub>-O-(CH<sub>2</sub>)<sub>o</sub>-2-oxo-pyrrolidin-1-yl,

- (CH<sub>2</sub>)<sub>m</sub>-O-tetrahydropyran-4-yl,

- (CH<sub>2</sub>)<sub>m</sub>-O-(CH<sub>2</sub>)<sub>o</sub>-morpholinyl, ·

- di-hydropyran-4-yl,

- tetra-hydropyran-4-yl,

- azetidin-1-yl, or

- azetidin-1-yl substituted by halogen, lower alkoxy or hydroxy; or

- b)  $-(CH_2)_n$ -piperidine-1-yl, or
  - (CH<sub>2</sub>)<sub>n</sub>-piperidine-1-yl substituted by one or two substituents selected from

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- hydroxy, - hydroxy-lower alkyl, - lower alkyl and - (CH_2)_m-O-lower alkyl; or
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- c)  $(CH_2)_n$ -phenyl, or
  - (CH<sub>2</sub>)<sub>n</sub>-phenyl substituted by one or two substituents selected from halogen, lower alkyl, lower alkoxy and (CH<sub>2</sub>)<sub>n</sub>-NR'R"; or
- d) benzo[1.3]dioxol-5-yl;
  - (CH<sub>2</sub>)<sub>n</sub>-morpholinyl;
  - (CH<sub>2</sub>)<sub>n</sub>-tetrahydropyran-4-yl;
  - (CH<sub>2</sub>)<sub>n</sub>-O-lower alkyl;
  - $(CH_2)_n$ -cycloalkyl;
  - $-(CH_2)_n C(O) NR'R'';$
  - (CH<sub>2</sub>)<sub>n</sub>-2-oxo-pyrrolidin-1-yl;
  - (CH<sub>2</sub>)<sub>n</sub>NR'R";
  - 2-oxa-5-aza-bicyclo[2.2.1]heptane-5-yl; or
  - 1-oxa-8-aza-spiro[4.5]decane-8-yl;

R' and R" are each independently selected from lower alkyl; -( $CH_2$ )<sub>0</sub>-O-lower alkyl; cycloalkyl; lower alkyl substituted by hydroxy; -( $CH_2$ )<sub>0</sub>-O-lower alkyl substituted by hydroxy; and cycloalkyl substituted by hydroxy;

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n is 0, 1, 2 or 3;
m is 0 or 1; and
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o is 1 or 2;

or a pharmaceutically acceptable salt thereof.

3. The compound of claim 1, wherein  $R^2$  is substituted  $-(CH_2)_n$ -pyridin-4-yl.

- 4. The compound of claim 3, wherein the substituents are selected from the group consisting of methyl, morpholinyl, azetidin-1-yl, 3-fluoro-azetidin-1-yl, 3-methoxy-azetidin-1-yl, 3-hydroxy-azetidin-1-yl and -O-(CH<sub>2</sub>)<sub>2</sub>-morpholinyl.
- 5. The compound of claim 4, which is selected from:
- (+)-N-(7-[1,4]dioxan-2-yl-4-methoxy-benzothiazol-2-yl)-2-methyl-isonicotinamide,
- (+)-N-(7-[1,4]dioxan-2-yl-4-methoxy-benzothiazol-2-yl)-2-morpholin-4-yl-isonicotinamide,
- (+)-2-azetidin-1-yl-N-(7-[1,4]dioxan-2-yl-4-methoxy-benzothiazol-2-yl)-isonicotinamide,
- (+)-N-(7-[1,4]dioxan-2-yl-4-methoxy-benzothiazol-2-yl)-2-(3-fluoro-azetidin-1-yl)-isonicotinamide,
- (+)-N-(7-[1,4]dioxan-2-yl-4-methoxy-benzothiazol-2-yl)-2-(3-methoxy-azetidin-1-yl)-isonicotinamide,
- (+)-N-(7-[1,4]dioxan-2-yl-4-methoxy-benzothiazol-2-yl)-2-(3-hydroxy-azetidin-1-yl)-isonicotinamide and
- (+)-N-(7-[1,4]dioxan-2-yl-4-methoxy-benzothiazol-2-yl)-2-(2-morpholin-4-yl-ethoxy)-isonicotinamide.
- 6. The compound of claim 1, wherein  $R^2$  is substituted  $-(CH_2)_n$ -pyridin-3-yl.
- 7. The compound of claim 6, wherein the substituent is methoxy.
- 8. The compound of claim 7, wherein the compound is (+)-N-(7-[1,4]dioxan-2-yl-4-methoxy-benzothiazol-2-yl)-5-methoxy-nicotinamide.
- 9. The compound of claim 1, wherein  $R^2$  is substituted  $-(CH_2)_n$ -pyridin-2-yl.
- 10. The compound of claim 1, wherein R<sup>2</sup> is unsubstituted -(CH<sub>2</sub>)<sub>n</sub>-pyridin-2, 3 or 4-yl.

- 11. The compound of claim 1, wherein  $R^2$  is mono-or di-substituted - $(CH_2)_n$ -phenyl.
- 12. The compound of claim 11, wherein the substituents are fluoro, mono- or dimethoxy or methyl.
- 13. The compound of claim 12, which is selected from
- (+)-N-(7-[1,4]dioxan-2-yl-4-methoxy-benzothiazol-2-yl)-4-fluoro-benzamide,
- (+)-N-(7-[1,4]dioxan-2-yl-4-methoxy-benzothiazol-2-yl)-4-methoxy-benzamide,
- (+)-N-(7-[1,4]dioxan-2-yl-4-methoxy-benzothiazol-2-yl)-4-methyl-benzamide, and
- (+)-N-(7-[1,4]dioxan-2-yl-4-methoxy-benzothiazol-2-yl)-3-methoxy-benzamide.
- 14. The compound of claim 1, wherein R<sup>2</sup> is unsubstituted -(CH<sub>2</sub>)<sub>n</sub>-phenyl.
- 15. The compound of claim 1, wherein R<sup>2</sup> is benzo[1.3]dioxol-5-yl.
- 16. The compound of claim 15, wherein the compound is (+)-benzo[1,3]dioxole-5-carboxylic acid (7-[1,4]dioxan-2-yl-4-methoxy-benzothiazol-2-yl)-amide.
- 17. The compound of claim 1, wherein R<sup>2</sup> is selected from
- - $(CH_2)_n$ -morpholinyl, - $(CH_2)_n$ -tetrahydropyran-4-yl, - $(CH_2)_n$ -O-lower alkyl,
- $-(CH_2)_n$ -cycloalkyl,  $-(CH_2)_n$ -C(O)-NR'R",  $-(CH_2)_n$ -2-oxo-pyrrolidin-1-yl,
- -(CH<sub>2</sub>)<sub>n</sub>NR'R", -2-oxa-5-aza-bicyclo[2.2.1]heptane-5-yl, and
- -1-oxa-8-aza-spiro[4.5]decane-8-yl.
- 18. A process for preparing a compound of formula I

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wherein
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- R<sup>1</sup> is selected from (RS)-[1,4]dioxan-2-yl-, (R)-[1,4]dioxan-2-yl-, and (S)-[1,4]dioxan-2-yl-;
- $R^2$  is a) -(CH<sub>2</sub>)<sub>n</sub>-pyridin-2,3 or 4-yl, or
  - -(CH<sub>2</sub>)<sub>n</sub>-pyridin-2,3 or 4-yl substituted by
    - lower alkyl,
    - (CH<sub>2</sub>)<sub>m</sub>-O-lower alkyl,
    - (CH<sub>2</sub>)<sub>m</sub>NR'R",
    - (CH<sub>2</sub>)<sub>m</sub>morpholinyl,
    - (CH<sub>2</sub>)<sub>m</sub>-pyrrolidin-1-yl,
    - (CH<sub>2</sub>)<sub>m</sub>-piperidine-1-yl,
    - (CH<sub>2</sub>)<sub>m</sub>-piperidine-1-yl substituted by hydroxy,
    - $-(CH_2)_m-O-(CH_2)_o-CF_3$ ,
    - (CH<sub>2</sub>)<sub>n</sub>-O-(CH<sub>2</sub>)<sub>m</sub>-cycloalkyl,
    - (CH<sub>2</sub>)<sub>m</sub>-O-(CH<sub>2</sub>)<sub>o</sub>-O-lower alkyl,
    - (CH<sub>2</sub>)<sub>m</sub>-O-(CH<sub>2</sub>)<sub>o</sub>-2-oxo-pyrrolidin-1-yl,
    - (CH<sub>2</sub>)<sub>m</sub>-O-tetrahydropyran-4-yl,
    - (CH<sub>2</sub>)<sub>m</sub>-O-(CH<sub>2</sub>)<sub>o</sub>-morpholinyl,
    - di-hydropyran-4-yl,
    - tetra-hydropyran-4-yl
    - azetidin-1-yl, or
    - azetidin-1-yl substituted by halogen, lower alkoxy or hydroxy; or
  - b)  $-(CH_2)_n$ -piperidine-1-yl, or
    - $(CH_2)_n$ -piperidine-1-yl substituted by one or two substituents selected from
      - hydroxy, hydroxy-lower alkyl, lower alkyl and  $(CH_2)_m$ -O-lower alkyl; or
  - c)  $(CH_2)_n$ -phenyl, or
    - (CH<sub>2</sub>)<sub>n</sub>-phenyl substituted by one or two substituents selected from
      - halogen, lower alkyl, lower alkoxy and (CH2)n-NR'R''; or

- d) benzo[1.3]dioxol-5-yl;
  - (CH<sub>2</sub>)<sub>n</sub>-morpholinyl;
  - (CH<sub>2</sub>)<sub>n</sub>-tetrahydropyran-4-yl;
  - (CH<sub>2</sub>)<sub>n</sub>-O-lower alkyl;
  - (CH<sub>2</sub>)<sub>n</sub>-cycloalkyl;
  - $(CH_2)_n$ -C(O)-NR'R'';
  - (CH<sub>2</sub>)<sub>n</sub>-2-oxo-pyrrolidin-1-yl;
  - (CH<sub>2</sub>)<sub>n</sub>NR'R";
  - 2-oxa-5-aza-bicyclo[2.2.1]heptane-5-yl; or
  - 1-oxa-8-aza-spiro[4.5]decane-8-yl;

R' and R" are each independently selected from lower alkyl;  $-(CH_2)_o$ -O-lower alkyl; cycloalkyl; lower alkyl substituted by one or more substituents selected from hydroxy and lower alkyl;  $-(CH_2)_o$ -O-lower alkyl substituted by one or more substituents selected from hydroxy and lower alkyl; and cycloalkyl substituted by one or more substituents selected from hydroxy and lower alkyl;

n is 0, 1, 2 or 3;

m is 0 or 1; and

o is 1 or 2;

or a pharmaceutically acceptable salt thereof, which process comprises

a) reacting a compound of formula 5

$$\begin{array}{c}
OCH_3 \\
N \\
NH_2
\end{array}$$

$$\begin{array}{c}
N \\
NH_2
\end{array}$$
(5)

with a compound of formula

ClC(O)R<sup>2</sup> / base (6)

or with a compound of formula

HOC(O)R<sup>2</sup> / HATU /base (7)

to produce a compound of formula I

wherein R<sup>1</sup> is as defined above,

19. A process for preparing a compound of formula I

wherein

R<sup>1</sup> is selected from (RS)-[1,4]dioxan-2-yl-, (R)-[1,4]dioxan-2-yl-, and (S)-[1,4]dioxan-2-yl-;

 $R^2$  is a) -(CH<sub>2</sub>)<sub>n</sub>-pyridin-2,3 or 4-yl, or -(CH<sub>2</sub>)<sub>n</sub>-pyridin-2,3 or 4-yl substituted by

- lower alkyl,
- $(CH_2)_m$ -O-lower alkyl,
- (CH<sub>2</sub>)<sub>m</sub>NR'R",
- (CH<sub>2</sub>)<sub>m</sub>morpholinyl,
- (CH<sub>2</sub>)<sub>m</sub>-pyrrolidin-1-yl,
- $(CH_2)_m$ -piperidine-1-yl,
- $(CH_2)_m$ -piperidine-1-yl substituted by hydroxy,
- (CH<sub>2</sub>)<sub>m</sub>-O-(CH<sub>2</sub>)<sub>o</sub>-CF<sub>3</sub>,
- $(CH_2)_n$ -O- $(CH_2)_m$ -cycloalkyl,
- (CH<sub>2</sub>)<sub>m</sub>-O-(CH<sub>2</sub>)<sub>o</sub>-O-lower alkyl,
- $(CH_2)_m$ -O- $(CH_2)_o$ -2-oxo-pyrrolidin-1-yl,

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- (CH<sub>2</sub>)<sub>m</sub>-O-tetrahydropyran-4-yl,
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- (CH<sub>2</sub>)<sub>m</sub>-O-(CH<sub>2</sub>)<sub>o</sub>-morpholinyl,
- di-hydropyran-4-yl,
- tetra-hydropyran-4-yl
- azetidin-1-yl, or
- azetidin-1-yl substituted by halogen, lower alkoxy or hydroxy; or
- b) (CH<sub>2</sub>)<sub>n</sub>-piperidine-1-yl, or
  - (CH<sub>2</sub>)<sub>n</sub>-piperidine-1-yl substituted by one or two substituents selected from
    - hydroxy, hydroxy-lower alkyl, lower alkyl and  $(CH_2)_m$ -O-lower alkyl; or
- c)  $-(CH_2)_n$ -phenyl, or
  - (CH<sub>2</sub>)<sub>n</sub>-phenyl substituted by one or two substituents selected from
    - halogen, lower alkyl, lower alkoxy and (CH<sub>2</sub>)<sub>n</sub>-NR'R''; or
- d) benzo[1.3]dioxol-5-yl;
  - (CH<sub>2</sub>)<sub>n</sub>-morpholinyl;
  - (CH<sub>2</sub>)<sub>n</sub>-tetrahydropyran-4-yl;
  - $(CH_2)_n$ -O-lower alkyl;
  - (CH<sub>2</sub>)<sub>n</sub>-cycloalkyl;
  - $(CH_2)_n$ -C(O)-NR'R'';
  - (CH<sub>2</sub>)<sub>n</sub>-2-oxo-pyrrolidin-1-yl;
  - (CH<sub>2</sub>)<sub>n</sub>NR'R";
  - 2-oxa-5-aza-bicyclo[2.2.1]heptane-5-yl; or
  - 1-oxa-8-aza-spiro[4.5]decane-8-yl;

R' and R" are each independently selected from lower alkyl;  $-(CH_2)_0$ -O-lower alkyl; cycloalkyl; lower alkyl substituted by one or more substituents selected from hydroxy and lower alkyl;  $-(CH_2)_0$ -O-lower alkyl substituted by one or more substituents selected from

hydroxy and lower alkyl; and cycloalkyl substituted by one or more substituents selected from hydroxy and lower alkyl;

n is 0, 1, 2 or 3;

m is 0 or 1; and

o is 1 or 2;

or a pharmaceutically acceptable salt thereof, which process comprises reacting a compound of formula 8

with a compound of formula

HR<sup>2</sup> / base (9)

to produce a compound of formula I

wherein R1 is as defined above.

20. A process for preparing a compound of formula I

wherein

R<sup>1</sup> is selected from (RS)-[1,4]dioxan-2-yl-, (R)-[1,4]dioxan-2-yl-, and (S)-[1,4]dioxan-2-yl-;

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-(CH_2)_n-pyridin-2,3 or 4-yl, or
R^2
          is a)
                    -(CH<sub>2</sub>)<sub>n</sub>-pyridin-2,3 or 4-yl substituted by
                             - lower alkyl,
                             - (CH<sub>2</sub>)<sub>m</sub>-O-lower alkyl,
                              - (CH<sub>2</sub>)<sub>m</sub>NR'R",
                              - (CH<sub>2</sub>)<sub>m</sub>morpholinyl,
                              - (CH<sub>2</sub>)<sub>m</sub>-pyrrolidin-1-yl,
                              - (CH_2)_m-piperidine-1-yl,
                              - (CH_2)_m-piperidine-1-yl substituted by hydroxy,
                              -(CH_2)_m-O-(CH_2)_o-CF<sub>3</sub>,
                              - (CH_2)_n-O-(CH_2)_m-cycloalkyl,
                              - (CH_2)_m-O-(CH_2)_o-O-lower alkyl,
                              - (CH_2)_m-O-(CH_2)_o-2-oxo-pyrrolidin-1-yl,
                              - (CH<sub>2</sub>)<sub>m</sub>-O-tetrahydropyran-4-yl,
                              - (CH<sub>2</sub>)<sub>m</sub>-O-(CH<sub>2</sub>)<sub>o</sub>-morpholinyl,
                              - di-hydropyran-4-yl,
                              - tetra-hydropyran-4-yl
                               - azetidin-1-yl, or
                               - azetidin-1-yl substituted by halogen, lower alkoxy or hydroxy; or
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- b) (CH<sub>2</sub>)<sub>n</sub>-piperidine-1-yl, or
   (CH<sub>2</sub>)<sub>n</sub>-piperidine-1-yl substituted by one or two substituents selected from
   hydroxy, hydroxy-lower alkyl, lower alkyl and (CH<sub>2</sub>)<sub>m</sub>-O-lower
  alkyl; or
- c) (CH<sub>2</sub>)<sub>n</sub>-phenyl, or
   (CH<sub>2</sub>)<sub>n</sub>-phenyl substituted by one or two substituents selected from
   halogen, lower alkyl, lower alkoxy and (CH<sub>2</sub>)<sub>n</sub>-NR'R"; or
- d) -benzo[1.3]dioxol-5-yl;- (CH<sub>2</sub>)<sub>n</sub>-morpholinyl;

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- (CH<sub>2</sub>)<sub>n</sub>-tetrahydropyran-4-yl;
- (CH<sub>2</sub>)<sub>n</sub>-O-lower alkyl;
- (CH<sub>2</sub>)<sub>n</sub>-cycloalkyl;
- (CH<sub>2</sub>)<sub>n</sub>-C(O)-NR'R";
- (CH<sub>2</sub>)<sub>n</sub>-2-oxo-pyrrolidin-1-yl;
- (CH<sub>2</sub>)<sub>n</sub>NR'R";
- 2-oxa-5-aza-bicyclo[2.2.1]heptane-5-yl; or
- 1-oxa-8-aza-spiro[4.5]decane-8-yl;
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R' and R" are each independently selected from lower alkyl;  $-(CH_2)_0$ -O-lower alkyl; cycloalkyl; lower alkyl substituted by one or more substituents selected from hydroxy and lower alkyl;  $-(CH_2)_0$ -O-lower alkyl substituted by one or more substituents selected from hydroxy and lower alkyl; and cycloalkyl substituted by one or more substituents selected from hydroxy or lower alkyl;

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n is 0, 1, 2 or 3;
m is 0 or 1; and
o is 1 or 2;
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or a pharmaceutically acceptable salt thereof, which process comprises separating a racemic compound of formula I into its (R)- and (S)-enantiomers.

- 21. The process of claim 18 further comprising converting the compound obtained into its pharmaceutically acceptable salt..
- 22. The process of claim 19 further comprising converting the compound obtained into its pharmaceutically acceptable salt.
- 23. The process of claim 20 further comprising converting the compound obtained into its pharmaceutically acceptable salt.

# 24. A pharmaceutical composition which comprises a compound of formula I

#### wherein

- R<sup>1</sup> is selected from (RS)-[1,4]dioxan-2-yl-, (R)-[1,4]dioxan-2-yl-, and (S)-[1,4]dioxan-2-yl-;
- $R^2$  is a)  $-(CH_2)_n$ -pyridin-2,3 or 4-yl, or
  - -(CH<sub>2</sub>)<sub>n</sub>-pyridin-2,3 or 4-yl substituted by
    - lower alkyl,
    - (CH<sub>2</sub>)<sub>m</sub>-O-lower alkyl,
    - (CH<sub>2</sub>)<sub>m</sub>NR'R",
    - (CH<sub>2</sub>)<sub>m</sub>morpholinyl,
    - (CH<sub>2</sub>)<sub>m</sub>-pyrrolidin-1-yl,
    - $(CH_2)_m$ -piperidine-1-yl,
    - $(CH_2)_m$ -piperidine-1-yl substituted by hydroxy,
    - $-(CH_2)_m$ -O- $(CH_2)_o$ -CF<sub>3</sub>,
    - $(CH_2)_n$ -O- $(CH_2)_m$ -cycloalkyl,
    - $(CH_2)_m$ -O- $(CH_2)_o$ -O-lower alkyl,
    - $(CH_2)_m$ -O- $(CH_2)_o$ -2-oxo-pyrrolidin-1-yl,
    - (CH<sub>2</sub>)<sub>m</sub>-O-tetrahydropyran-4-yl,
    - $(CH_2)_m$ -O- $(CH_2)_o$ -morpholinyl,
    - di-hydropyran-4-yl,
    - tetra-hydropyran-4-yl
    - azetidin-1-yl, or
    - azetidin-1-yl substituted by halogen, lower alkoxy or hydroxy; or
  - b) (CH<sub>2</sub>)<sub>n</sub>-piperidine-1-yl, or
    - $(CH_2)_n$ -piperidine-1-yl substituted by one or two substituents selected from  $\ \ .$

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- hydroxy, - hydroxy-lower alkyl, - lower alkyl and - (CH_2)_m-O-lower alkyl; or
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- c) (CH<sub>2</sub>)<sub>n</sub>-phenyl, or
   (CH<sub>2</sub>)<sub>n</sub>-phenyl substituted by one or two substituents selected from
   halogen, lower alkyl, lower alkoxy and (CH<sub>2</sub>)<sub>n</sub>-NR'R"; or
- d) benzo[1.3]dioxol-5-yl;
   (CH<sub>2</sub>)<sub>n</sub>-morpholinyl;
   (CH<sub>2</sub>)<sub>n</sub>-tetrahydropyran-4-yl;
   (CH<sub>2</sub>)<sub>n</sub>-O-lower alkyl;
   (CH<sub>2</sub>)<sub>n</sub>-cycloalkyl;
   (CH<sub>2</sub>)<sub>n</sub>-C(O)-NR'R";
   (CH<sub>2</sub>)<sub>n</sub>-2-oxo-pyrrolidin-1-yl;
   (CH<sub>2</sub>)<sub>n</sub>NR'R";
   2-oxa-5-aza-bicyclo[2.2.1]heptane-5-yl; or
   1-oxa-8-aza-spiro[4.5]decane-8-yl;

R' and R" are each independently selected from lower alkyl;  $-(CH_2)_0$ -O-lower alkyl; cycloalkyl; lower alkyl substituted by one or more substituents selected from hydroxy and lower alkyl;  $-(CH_2)_0$ -O-lower alkyl substituted by one or more substituents selected from hydroxy and lower alkyl, and cycloalkyl substituted by one or more substituents selected from hydroxy or lower alkyl;

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n is 0, 1, 2 or 3;
m is 0 or 1; and
o is 1 or 2;
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or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable excipient.

25. A method of treating a disease based on adenosine A<sub>24</sub> receptor activity comprising administering to a patient in need of such treatment a therapeutically effective amount of at least one compound of formula I

wherein

R<sup>1</sup> is selected from (RS)-[1,4]dioxan-2-yl-, (R)-[1,4]dioxan-2-yl-, and (S)-[1,4]dioxan-2-yl-;

R<sup>2</sup> is a) -(CH<sub>2</sub>)<sub>n</sub>-pyridin-2,3 or 4-yl, or

-(CH<sub>2</sub>)<sub>n</sub>-pyridin-2,3 or 4-yl substituted by

- lower alkyl,
- (CH<sub>2</sub>)<sub>m</sub>-O-lower alkyl,
- (CH<sub>2</sub>)<sub>m</sub>NR'R",
- (CH<sub>2</sub>)<sub>m</sub>morpholinyl,
- (CH<sub>2</sub>)<sub>m</sub>-pyrrolidin-1-yl,
- (CH<sub>2</sub>)<sub>m</sub>-piperidine-1-yl,
- $(CH_2)_m$ -piperidine-1-yl substituted by hydroxy,
- $-(CH_2)_m$ -O- $(CH_2)_o$ -CF<sub>3</sub>,
- (CH<sub>2</sub>)<sub>n</sub>-O-(CH<sub>2</sub>)<sub>m</sub>-cycloalkyl,
- (CH<sub>2</sub>)<sub>m</sub>-O-(CH<sub>2</sub>)<sub>o</sub>-O-lower alkyl,
- $(CH_2)_m$ -O- $(CH_2)_0$ -2-oxo-pyrrolidin-1-yl,
- (CH<sub>2</sub>)<sub>m</sub>-O-tetrahydropyran-4-yl,
- (CH<sub>2</sub>)<sub>m</sub>-O-(CH<sub>2</sub>)<sub>o</sub>-morpholinyl,
- di-hydropyran-4-yl,
- tetra-hydropyran-4-yl
- azetidin-1-yl, or
- azetidin-1-yl substituted by halogen, lower alkoxy or hydroxy; or

- b) (CH<sub>2</sub>)<sub>n</sub>-piperidine-1-yl, or
   (CH<sub>2</sub>)<sub>n</sub>-piperidine-1-yl substituted by one or two substituents selected from hydroxy, hydroxy-lower alkyl, lower alkyl and (CH<sub>2</sub>)<sub>m</sub>-O-lower alkyl; or
   c) (CH<sub>2</sub>)<sub>n</sub>-phenyl, or
- c) (CH<sub>2</sub>)<sub>n</sub>-phenyl, or
   (CH<sub>2</sub>)<sub>n</sub>-phenyl substituted by one or two substituents selected from
   halogen, lower alkyl, lower alkoxy and (CH<sub>2</sub>)<sub>n</sub>-NR'R"; or
- d) benzo[1.3]dioxol-5-yl;
   (CH<sub>2</sub>)<sub>n</sub>-morpholinyl;
   (CH<sub>2</sub>)<sub>n</sub>-tetrahydropyran-4-yl;
   (CH<sub>2</sub>)<sub>n</sub>-O-lower alkyl;
   (CH<sub>2</sub>)<sub>n</sub>-cycloalkyl;
   (CH<sub>2</sub>)<sub>n</sub>-C(O)-NR'R";
   (CH<sub>2</sub>)<sub>n</sub>-C(O)-NR'R";
   (CH<sub>2</sub>)<sub>n</sub>-2-oxo-pyrrolidin-1-yl;
   (CH<sub>2</sub>)<sub>n</sub>NR'R";
   2-oxa-5-aza-bicyclo[2.2.1]heptane-5-yl; or
   1-oxa-8-aza-spiro[4.5]decane-8-yl;

R' and R" are each independently selected from lower alkyl;  $-(CH_2)_0$ -O-lower alkyl; cycloalkyl; lower alkyl substituted by one or more substituents selected from hydroxy and lower alkyl;  $-(CH_2)_0$ -O-lower alkyl substituted by one or more substituents selected from hydroxy and lower alkyl; and cycloalkyl substituted by one or more substituents selected from hydroxy or lower alkyl;

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n is 0, 1, 2 or 3;
m is 0 or 1; and
o is 1 or 2;
or a pharmaceutically acceptable salt thereof.
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